RAW SEQUENCE LISTING   DATE: 12/17/2001
PATENT APPLICATION: US/10/006,911   TIME: 10:45:25

Input Set : **A:\RTS-0200 Sequence Listing.txt**
Output Set: **N:\CRF3\12172001\J006911.raw**

```
   6  <110> APPLICANT: William Gaarde
   7        Andrew T. Watt
   9  <120> TITLE OF INVENTION: ANTISENSE MODULATION OF COLLAPSIN RESPONSE MEDIATOR PROTEIN
 2 EXPRESSION
  11  <130> FILE REFERENCE: RTS-0200
C-->  13  <140> CURRENT APPLICATION NUMBER: US/10/006,911
C-->  13  <141> CURRENT FILING DATE: 2001-11-08
  13  <160> NUMBER OF SEQ ID NOS: 89
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  17  <211> LENGTH: 20
  18  <212> TYPE: DNA
  19  <213> ORGANISM: Artificial Sequence
  21  <220> FEATURE:
  23  <223> OTHER INFORMATION: Antisense Oligonucleotide
  25  <400> SEQUENCE: 1
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  29  <210> SEQ ID NO: 2
  30  <211> LENGTH: 20
  31  <212> TYPE: DNA
  32  <213> ORGANISM: Artificial Sequence
  34  <220> FEATURE:
  36  <223> OTHER INFORMATION: Antisense Oligonucleotide
  38  <400> SEQUENCE: 2
  39  atgcattctg cccccaagga                                        20
  42  <210> SEQ ID NO: 3
  43  <211> LENGTH: 5421
  44  <212> TYPE: DNA
  45  <213> ORGANISM: Homo sapiens
  47  <400> SEQUENCE: 3
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  49  tgactgaaaa aaatgactag ttattatgaa gacactactg ttgaagatgg atattttaac 120
  50  atggagtttc aacaaaatta cttcttgaga cagagctgat gtgtttttta aataacgtga 180
  51  ttttaagcat atatttgaac aaaactaaaa catttagtat tatgaatatg aaaaaagatc 240
  52  agtaaatcaa tgtactcttc taggctgaat taaggtagac tatttaaggt ttcaaaaaag 300
  53  tttggctggg gcagaataag ttttacaaaa cccatgccat ccaaaattaa gatgacatgt 360
  54  agcagcaaga agtattccaa tgtctcataa ccagttctcg caagcaatgt gtattcctta 420
  55  ctttaaggaa gtgtcaaaca aatagaaaaa tctggaagaa tttactaagt gtaataaatt 480
  56  agaggtaaat cgtaataaaa gaatttatgt ctcacaaaaa tattcacaag tgggagtttt 540
  57  cttttaccaa cttctcagag tccttctagc cccctcttca cttctgaaag atgggattta 600
  58  ccaaaatctg gtttacattt aacttttcag ggacacatga cctgaaaaga aagatgtcag 660
  59  ataatactga cattgcctca tgcactttct ttgtatcagt ccttcttctg taagtaatca 720
  60  gaattgggtc caaatggcat agaatcaaac attatgtatc atgccaaata ccacttcctg 780
  61  cccaacaaaa tttcatcttt ctccagtaat gaagaggtgg acattcttgt tggactgtag 840
  62  catctgtgcc gcccgctcca caccaaccac ggcagctaac ctctgggcat catatttgga 900
  63  gtagagaaca gtgcaggtcc acgtggcctc ttctcctctg ttggtggctc tcagcatatt 960
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  65  gcctttttatt gctgtagttt atttccaccc ccttccctcc tgttttctct ctctccttct 1080
  66  ctctctctct ctctctctct ttttttttccg ccctagctgg ggctgtgttg gaggagagga 1140
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Output Set: N:\CRF3\12172001\J006911.raw

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 67 agaaagagag acagaggatt gcattcatcc gttacgttct tgaaatttcc taatagcaag 1200
 68 accagcgaag cggttgcacc cttttcaatc ttgcaaagga aaaaaacaaa acaaaacaaa 1260
 69 aaaaacccaa gtccccttcc cggcagtttt tgccttaaag ctgccctctt gaaattaatt 1320
 70 ttttcccagg agagagatgt cttatcaggg gaagaaaaat attccacgca tcacgagcga 1380
 71 tcgtcttctg atcaaaggag gtaaaattgt taatgatgac cagtcgttct atgcagacat 1440
 72 atacatggaa gatgggttga tcaagcaaat aggagaaaat ctgattgtgc caggaggagt 1500
 73 gaagaccatc gaggcccact cccggatggt gatccccgga ggaattgacg tccacactcg 1560
 74 tttccagatg cctgatcagg gaatgacgtc tgctgatgat ttcttccaag gaaccaaggc 1620
 75 ggccctggct gggggaacca ctatgatcat tgaccacgtt gttcctgagc ctgggacaag 1680
 76 cctgctcgct gcctttgacc agtggaggga atgggccgac agcaagtcct gctgtgacta 1740
 77 ctctctgcat gtggacatca gcgagtggca taagggcatc caggaggaga tggaagcgct 1800
 78 tgtgaaggat cacggggtaa attccttcct cgtgtacatg gctttcaaag atcgcttcca 1860
 79 gctaacggat tgccagattt atgaagtact gagtgtgatc cgggatattg gcgccatagc 1920
 80 ccaagtccac gcagaaaatg gcgacatcat tgcagaggag cagcagagga tcctggatct 1980
 81 gggcatcacg ggccccgagg gacatgtgct gagccgacct gaggaggtcg aggccgaagc 2040
 82 cgtgaatcgt gccatcacca tcgccaacca gaccaactgc ccgctgtata tcaccaaggt 2100
 83 gatgagcaaa agctctgctg aggtcatcgc ccaggcacgg aagaagggaa ctgtggtgta 2160
 84 tggcgagccc atcactgcca gcttgggaac ggacggctcc cattactgga gcaagaactg 2220
 85 ggccaaggct gctgcctttg tcacctcccc acccttgagc cctgatccaa ccactccaga 2280
 86 ctttctcaac tccttgctgt cctgtggaga cctccaggtc acgggcagtg cccattgcac 2340
 87 gtttaacact gcccagaagg ctgtaggaaa ggacaacttc accctgattc cggaggggcac 2400
 88 caatggcact gaggagcgga tgtccgtcat ctgggacaag gctgtggtca ctgggaagat 2460
 89 ggatgagaac cagtttgtgg ctgtgaccag caccaatgca gccaaagtct tcaacctttta 2520
 90 cccccggaaa ggccgcattg ctgtgggatc cgatgccgac ctggtcatct gggacccccga 2580
 91 cagcgttaaa accatctctg ccaagacaca caacagctct ctcgagtaca acatctttga 2640
 92 aggcatggag tgccgcggct ccccactggt ggtcatcagc caggggaaga ttgtcctgga 2700
 93 ggacggcacc ctgcatgtca ccgaaggctc tggacgctac attccccgga agcccttccc 2760
 94 tgattttgtt tacaagcgta tcaaggcaag gagcaggctg gctgagctga gaggggttcc 2820
 95 tcgtggcctg tatgacggac ctgtgtgtga agtgtctgtg acgcccaaga cagtcactcc 2880
 96 agcctcctcg gccaagacgt ctcctgccaa gcagcaggcc ccacctgtcc ggaacctgca 2940
 97 ccagtctgga ttcagtttgt ctggtgctca gattgatgac aacattcccc gccgcaccac 3000
 98 ccagcgtatc gtggcgcccc ccggtggccg tgccaacatc accagcctgg gctagagctc 3060
 99 ctggctgtg cgtccactgg ggactgggga tgggacacct gaggacattc tgagacttct 3120
100 ttcttccttc ctttttttt tttgtttttt tttttaagag cctgtgatag ttactgtgga 3180
101 gcagccagtt catgggtcc cccttgggcc cacacccgt ctctcaccaa gagttactga 3240
102 ttttgctcat ccacttccct acacatctat gggtatcaca cccaagacta cccaccaagc 3300
103 tcatacaggg aaccacaccc aacacttaga catgcgaaca agcagccccc agcgagggtc 3360
104 tccttcgcct tcaacctcct agtgtctgtt agcattcctt ttcatggggg gagggaagat 3420
105 aaagtgaatt gcccagagct gccttttct tttctttta aaaatttaa gaagttttcc 3480
106 ttgtggggct ggggaggggc cggggtcagg gagagtcttt tttttttttt ttttaaatac 3540
107 taaattggaa catttaattc catattaata caagggtttt gaactggaca tcctaatgat 3600
108 gcaattacgt catcacccag ctgattccgg gtggttggca aactcatcgt gtctgtcctg 3660
109 agaggctcca caatgcccac ccgcatcgcc attctgtagt cttcagggtc agctgttgat 3720
110 aaaggggcag gcttgcgtta ttggcctaga ttttgctgca gattaaatcc tttgaggatt 3780
111 ctcttctctt ttaccatttt tctgcgtgct ctcactctct ctttctctct ctagcttttt 3840
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113 tcggagacgg tgttttcctc ccttgcccca ttatctttc acctcccagg tctacatttc 3960
114 atggtggtcg ttgggtccgc ctaaaggatt tgagcgtttg ccattgcaag catagtgctg 4020
115 tgtcatcctg gtccatgtag gactggtgct aaccacctgc catcatgagg atgtgtgcta 4080
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PATENT APPLICATION: US/10/006,911   TIME: 10:45:25

Input Set : A:\RTS-0200 Sequence Listing.txt
Output Set: N:\CRF3\12172001\J006911.raw

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117 cgtggaaccg cagacagggc ccagaagctt tagaggtatg aggctgcaga accggagaga 4200
118 ttttcctctg tgcagtgctc tctggctaaa gtcacggtca aacctaaaca ccgagcctca 4260
119 ttaacccaag tgaaccaacc aaagtcacca gttcagaagt gctaagctaa taggagtctg 4320
120 acccgagggc ctgctgcttc ctggttaagt atcttttgag attctagaac acatggagc 4380
121 ttttattttt cggggaaaaa ccgtatttttt ttcttgtcca attatttcta aagacacact 4440
122 acatagaaag aggccctata aactcaaaaa gtcattggga aacttaaagt ctattctact 4500
123 ttgccaagag gagaaatgtg ttttatgaac gatagatcac atcagaactc ctgtgggag 4560
124 gaaaccttat aaattaaaca catggccccc ttagagacca caggcgatgt ctgtctccat 4620
125 ccttccctct cctttttctgt caccttttccc cctagctggc tcctttggac ctaccctgt 4680
126 ccttgctgac ttgtgttgca ttgtattcca aacgtgttta caggttctct taagcaatgt 4740
127 tgtatttgca ggcttttctg aataccaaat ctgcttttttg taaagcgtaa aaacatcaca 4800
128 aagtaggtca ttccatcacc acccttgtct ctctacacat tttgcctttg gggatctggt 4860
129 tggggttttg ggttttttgt tgttgttgtt tatttgttat tttaaaggta aattgcactt 4920
130 ttaaaaaaat aattggttga cttaatatat ttgcttttttt tctcacctgc acttagagga 4980
131 aatttgaaca agttggaaaa aaacaatttt tgtttcaatt ctaagaaaca cttgcagctc 5040
132 tagtattcac ttgagtcttc ctgttttttcc tgtaccgggt catggtaatt tttggttgtt 5100
133 ttggttgttt tcttaaaaaa caagttaaaa cctgacgatt tctgcagtga cttgatgctc 5160
134 taaaacagtg taggatttaa gaatagatgg tttttaatcc tggaaattgt gattgtgacc 5220
135 catgagtgga ggaactttca gttctaaagc tgataaagtg tgtagccaga agagtacttt 5280
136 tttttttgtaa ccactgtctt gatggcaaaa taattatggt aaaaaacaag tctcgtgttt 5340
137 attattcctt aagaactctg tgttatatta ccatggaacg cctaataaag caaaatgtgg 5400
138 ttgtttcaaa aaaaaaaaaa a 5421
141 <210> SEQ ID NO: 4
142 <211> LENGTH: 21
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144 <213> ORGANISM: Artificial Sequence
146 <220> FEATURE:
148 <223> OTHER INFORMATION: PCR Primer
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155 <211> LENGTH: 21
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
161 <223> OTHER INFORMATION: PCR Primer
163 <400> SEQUENCE: 5
164 gggttaatga ggctcggtgt t                                        21
167 <210> SEQ ID NO: 6
168 <211> LENGTH: 30
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
174 <223> OTHER INFORMATION: PCR Probe
176 <400> SEQUENCE: 6
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180 <210> SEQ ID NO: 7
181 <211> LENGTH: 19
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RAW SEQUENCE LISTING   DATE: 12/17/2001
PATENT APPLICATION: US/10/006,911   TIME: 10:45:25

Input Set : **A:\RTS-0200 Sequence Listing.txt**
Output Set: **N:\CRF3\12172001\J006911.raw**

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182 <212> TYPE: DNA
183 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
187 <223> OTHER INFORMATION: PCR Primer
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194 <211> LENGTH: 20
195 <212> TYPE: DNA
196 <213> ORGANISM: Artificial Sequence
198 <220> FEATURE:
200 <223> OTHER INFORMATION: PCR Primer
202 <400> SEQUENCE: 8
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207 <211> LENGTH: 20
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
213 <223> OTHER INFORMATION: PCR Probe
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220 <211> LENGTH: 2000
221 <212> TYPE: DNA
222 <213> ORGANISM: Homo sapiens
224 <220> FEATURE:
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230 tgtgtgtgca tacatgtaca caattcccaa gttctgacca ctgagcctgg gatgagtggc   180
231 accacaatag taagcactcc aatctaacct tttataataa tttcctacta aaagcaagca   240
232 gggctggagt agagaaacct ggaatgtctc attgtcaaaa aatacagcag tgcccaagta   300
233 gatgggggac atgtcaaaag tacacagggg ctaacctgaa ggtgctccca gcggccatat   360
234 ttgagaccag ttacgcatct aaagaaataa tgatgtaaca aaccgtaacc cattgaataa   420
235 aagaagaaac tacgagtcca tactaggatg agttgaatat ctcttatctg aaatgcttgg   480
236 gaccagacgt gtttcgaatt tttttggatt ctgaaatatt cacattatcc ttattggtgg   540
237 ggcattccta atcacaaaca ataccettaa ttgtttacag gaaatatata ctaaagtatt   600
238 taaaggtgat aggcccactg ggttggcaac tcactctcaa atggttcagg ttctgtactt   660
239 ggaattttc tgtttgagaa tgtttcaaaa taaaaatgtt tttaaaagtg taatttcctt   720
240 tttatttgca tctgtttatg actgaaaaaa tgactagtta ttatgaagac actactgttg   780
241 aagatggata tttaacatg gagtttcaac aaaattactt cttgagacag agctgatgtg   840
242 tttttaaat aacgtgattt taagcatata tttgaacaaa actaaaacat ttagtattat   900
243 gaatatgaaa aaagatcagt aaatcaatgt actcttctag gctgaattaa ggtagactat   960
244 ttaaggtttc aaaaaagttt ggctggggca gaataagttt tacaaaaccc atgccatcca  1020
245 aaattaagat gacatgtagc agcaagaagt attccaatgt ctcataacca gttctcgcaa  1080
246 gcaatgtgta ttccttactt taaggaagtg tcaaacaaat agaaaaatct ggaagaattt  1140
247 actaagtgta ataaattaga ggtaaatcgt aataaaagaa tttatgtctc acaaaaatat  1200
248 tcacaagtgg gagttttctt ctaccaactt ctcagagtcc ttctagcccc ctcttcactt  1260
```

```
249 ctgaaagatg ggatttacca aaatctggtt tacatttaac ttttcaggga cacatgacct 1320
250 gaaaagaaag atgtcagata atactgacat tgcctcatgc actttctttg tatcagtcct 1380
251 tcttctgtaa gtaatcagaa ttgggtccaa atggcataga atcaaacatt atgtatcatg 1440
252 ccaaatacca cttcctgccc aacaaaattt cattttctc cagtaatgaa gaggtggaca 1500
253 ttcttgttgg actgtagcat ctgtgccgcc cgctccacac caaccacggc agctaacctc 1560
254 tgggcatcat atttggagta gagaacagtg caggtccacg tggcctcttc tcctctgttg 1620
255 gtggctctca gcatattaca gatttcactg taaaagtgtg gatatgtcgg cagttcatag 1680
256 aaaatcaggt tcctgatgcc ttttattgta tacctgtcag aattggaaag aaagagctat 1740
257 gtcaacttga gaaacaagtt ctagaaaaac tacctaggag ttgtacagag gcatagttca 1800
258 tgcttgttgc ttcctgctaa tggagaaaaa cagtggcaca agtaacagaa caaaagttat 1860
259 tctaacttga ggtggcaaca tatttgaatt cttttatga caacatattc gaattcctaa 1920
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261 tgaggtatca tgggaaagaa                                          2000
264 <210> SEQ ID NO: 11
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267 <213> ORGANISM: Homo sapiens
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272 aaatttccta atagcaagac cagcgaagcg gttgcaccct tttcaatctt gcaaaggaaa 180
273 aaaacaaaac aaaacaaaaa aaacccaagt ccccttcccg gcagtttttg ccttaaagct 240
274 gccctcttga aattaatttt ttcccaggag agagatgtct tatcagggga agaaaaatat 300
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276 gtcgttctat gcagacatat acatggaaga tgggttgatc aagcaaatag gagaaaatct 420
277 gattgtgcca ggaggagtga agaccatcga ggcccactcc cggatggtga tccccggagg 480
278 aattgacgtc cacactcgtt tccagatgcc tgatcaggga atgacgtctg ctgatgattt 540
279 cttccaagga accaaggcgg ccctggctgg gggaaccact atgatcattg accacgttgt 600
280 tcctgagcct gggacaagcc tgctcgctgc ctttgaccag tggagggaat gggccgacag 660
281 caagtcctgc tgtgactact ctctgcatgt ggacatcagc gagtggcata agggcatcca 720
282 ggaggagatg gaagcgcttg tgaaggatca cggggtaaat tccttcctcg tgtacatggc 780
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288 gaagggaact gtggtgtatg gcgagcccat cactgccagc ttgggaacgg acggctccca 1140
289 ttactggagc aagaactggg ccaaggctgc tgcctttgtc acctccccac ccttgagccc 1200
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293 tgtggtcact gggaagatgg atgagaacca gtttgtggct gtgaccagca ccaatgcagc 1440
294 caaagtcttc aacctttacc cccggaaagg ccgcattgct gtgggatccg atgccgacct 1500
295 ggtcatctgg gaccccgaca gcgttaaaac catctctgcc aagacacaca acagctctct 1560
296 cgagtacaac atctttgaag gcatggagtg ccgcggctcc ccactggtgg tcatcagcca 1620
297 ggggaagatt gtcctggagg acggcaccct gcatgtcacc gaaggctctg acgctacat 1680
298 tcccccggaag cccttccctg attttgttta caagcgtatc aaggcaagga gcaggctggc 1740
299 tgagctgaga ggggttcctc gtggcctgta tgacggacct gtgtgtgaag tgtctgtgac 1800
300 gcccaagaca gtcactccag cctcctcggc caagacgtct cctgccaagc agcaggcccc 1860
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VERIFICATION SUMMARY
PATENT APPLICATION: **US/10/006,911**

DATE: 12/17/2001
TIME: 10:45:26

Input Set : **A:\RTS-0200 Sequence Listing.txt**
Output Set: **N:\CRF3\12172001\J006911.raw**

```
L:13   M:270 C: Current Application Number differs, Replaced Current Application No
L:13   M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:1363 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:3
L:1366 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:89
L:1366 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:3
L:1370 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:89
L:1370 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4
L:1371 M:336 W: Invalid Amino Acid Number in Coding Region, SEQ ID:89
L:1371 M:334 W: (2) Invalid Amino Acid in Coding Region, NUMBER OF INVALID KEYS:4
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